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In the Supreme Court of the United States

OCTOBER TERM, 1963

No. 204

UNITED STATES OF AMERICA, APPELLANT

v.

ALUMINUM COMPANY OF AMERICA AND ROME CABLE
CORPORATION

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR
THE NORTHERN DISTRICT OF NEW YORK

BRIEF FOR THE UNITED STATES

OPINION BELOW

The opinion of the district court (R. 1305) is reported at 214 F. Supp. 501.

JURISDICTION

The judgment of the district court was entered on January 28, 1963 (R. 1305), and the notice of appeal was filed by the United States on March 29, 1963 (R. 1337). This Court noted probable jurisdiction on October 14, 1963 (R. 3510; 375 U.S. 808).

The jurisdiction of this Court is conferred by Section 2 of the Expediting Act of February 11, 1903, 32 Stat. 823, as amended, 15 U.S.C. 29.

QUESTIONS PRESENTED

The primary question is whether the acquisition of all of the stock and assets of one of the few significant independent fabricators of aluminum conductor wire and cable (Rome Cable) by the largest producer of primary aluminum and aluminum conductor wire and cable (Aluminum Company of America) in an already oligopolistic market violates Section 7 of the Clayton Act.

A subsidiary question is whether aluminum conductor and insulated aluminum conductor are lines of commerce in which the effect of the acquisition may appropriately be judged.

STATUTE INVOLVED

Section 7 of the Clayton Act, 38 Stat. 731, as amended, 64 Stat. 1125, 15 U.S.C. 18, provides in pertinent part:

No corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no corporation subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another corporation engaged also in commerce, where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.

STATEMENT

This is a civil antitrust action by the United States charging a violation of Section 7 of the Clayton Act (15 U.S.C. 18). The complaint, filed on April 1, 1960,

charged that the effect of the 1959 acquisition by the Aluminum Company of America ("Alcoa") of the Rome Cable Corporation ("Rome") "may be substantially to lessen competition or to tend to create a monopoly" in the production and sale of various wires and cable products and accessories. It asked, *inter alia*, for divestiture by Alcoa of all the assets, business and good will acquired from Rome. After a month-long trial ending March 1, 1962, the district court, on January 28, 1963, held that no violation of Section 7 had been established and dismissed the complaint.

1. THE MERGING COMPANIES

Alcoa.—From its incorporation in 1888 until 1940, Alcoa was the sole domestic producer of virgin aluminum ingot and of aluminum conductor wire and cable, *United States v. Aluminum Company of America*, 148 F. 2d 416, 422, 423, 438 (C.A. 2). In a celebrated monopoly case, begun in 1937 and extending in its various phases over a period of twenty years,¹ the Second Circuit,² per Learned Hand, J., held that Alcoa had monopolized the aluminum industry in violation of Section 2 of the Sherman Act. Relief, however, was deferred pending disposition by the government of the aluminum facilities it had built during World War II, *id.* at 446-447; see *United*

¹ Litigation was terminated on June 28, 1957, *United States v. Aluminum Company of America*, 158 F. Supp. 132 (S.D. N.Y.). Twelve days later, on July 10, 1957, Alcoa made its first attempt to acquire Rome (GX 159, R. 2176).

² A quorum was wanting in the Court, so that the circuit court acted as the court of last resort, pursuant to the Act of June 9, 1944, 58 Stat. 272.

States v. Aluminum Company of America, 91 F. Supp. 333 (S.D. N.Y.); *United States v. Aluminum Company of America*, 153 F. Supp. 132 (S.D. N.Y.). The Surplus Property Act of 1944, 58 Stat. 765 (1944) directed that these facilities be distributed "in such manner, and with such purpose, as would foster competitive conditions in the aluminum industry"; thus the War Assets Administration used the government's aluminum properties "as an instrument to create competition rather than * * * to recover the Government's investment", and established domestic competition for Alcoa in the aluminum business. *United States v. Aluminum Company of America*, 91 F. Supp. 333, 339, 351-354 (S.D. N.Y.). As a result, Reynolds Metals Company ("Reynolds") and Kaiser Aluminum & Chemical Corporation ("Kaiser") became integrated producers of aluminum and aluminum products. Judge Knox noted in 1950 that the competition they created for Alcoa was "due, almost entirely, to the disposal program of the War Assets Administration." *Id.* at 380. See also *United States v. Aluminum Company of America*, 153 F. Supp. 132 (S.D. N.Y.). Since 1950, three more companies—Ormet, Inc. ("Ormet"), Harvey Aluminum ("Harvey"), and Anaconda Aluminum Company ("Anaconda")—have entered the primary aluminum field, with various forms of government assistance (*ibid.*).

Alcoa, however, has continued to be the largest producer of primary aluminum (R. 1312), accounting for 52 percent of the nation's output of primary aluminum in 1948, 45 percent in 1956, and 36 percent in 1960 (R. 1313). The district court used the following

table to indicate the relative productive capacities of Alcoa and the other primary producers in 1960 (R. 1310):

Aluminum Ingot Capacity Existing or Under Construction at the End of 1960

Company	Capacity	Percent of	
		U.S.	total
United States total.....	2,855,750	100.0	
Aluminum Company of America.....	1,025,250	35.6	
Reynolds Metals Company.....	701,000	24.4	
Kaiser Aluminum & Chemical Corp.....	600,500	21.0	
Ormet, Inc.....	180,000	6.3	
Harvey Aluminum.....	75,000	2.6	
Anaconda Aluminum Company.....	65,000	2.4	

In addition to primary aluminum, Alcoa fabricates a wide variety of semi-finished and finished products, including sheet, plate, rod, bar, extrusions, castings, forgings, tubing, foil, rivets, closures, screws, electrical conductors and accessories and conduit (Fdg. 12, R. 1284). It is a fully integrated aluminum producer (R. 1306), owning and operating raw material locations, shipping lines, railroads, water companies, electric power companies, coal properties, gas lines, and numerous manufacturing facilities for converting aluminum ore into primary, semi-fabricated, and finished aluminum products (GX 9, R. 1376-1381; GX 49, R. 1625). In 1960, Alcoa's assets were approximately \$1,375 million, its gross revenues \$870 million, and its net income \$40 million (GX 49, R. 1619-1621).

The lines of commerce upon which the merger would bear most heavily are aluminum conductor wire and cable ("aluminum conductor") and insulated or

covered aluminum conductor wire and cable ("insulated aluminum" or "aluminum insulated"). Conductor wire and cable is a major end use of aluminum. Thus, in 1958 the total United States production of primary aluminum ingot was 3,131 million pounds, while 226 million pounds of aluminum conductor were produced, of which 51 million pounds were insulated wire and cable (AR 49, R. 3403; GX 434, R. 2713, GX 436, R. 2717).

It was Alcoa which pioneered the use of aluminum as an electrical conductor and sold substantially all of the aluminum cable used for electrical transmission in the United States prior to World War II (R. 1313). The company's activity in aluminum conductors began in 1899 when it developed and sold the nation's first aluminum transmission line* (GX 235, R. 2309). In 1909 an Alcoa engineer invented ACSR (aluminum cable, steel reinforced), which remains today the most popular type of bare aluminum conductor (R. 1054). Alcoa also was first to develop insulated aluminum conductors (GX 235, R. 2310), although in this product line its initial efforts were directed to promoting fabrication by other wire and cable manufacturers (see R. 1054; R. 1077). One of Alcoa's five research laboratories* is devoted entirely to the development of new products and processes for

* Electric utility power systems usually distinguish between (1) "transmission lines," which carry electricity at high voltages from generating plants to substations in areas of consumer demand; and (2) "distribution lines," which carry the electricity at reduced voltages from substations to consumers. (See AR 12, R. 3246, and R. 297.)

* Exclusive of the Rome Research Center, discussed *infra*, p. 10.

electrical conduction (GX 7, R. 1346), and the company offers "outstanding" technical service to its aluminum conductor customers (R. 187). In addition, Alcoa is the only domestic manufacturer of a full line of aluminum conductor accessory products, an important companion line to aluminum conductor wire and cable (R. 393-397). Other complementary items made by Alcoa include transmission towers, substation structures, conduit, bus conductors, and architectural products (GX 7, R. 1346; R. 1596).

There was testimony that, prior to the acquisition of Rome, Alcoa had never merged with another company and the court below apparently so found (R. 1322, 1108).⁸ Subsequent to the Rome acquisition, however, Alcoa acquired Cupples Products Corporation, a fabricator of aluminum architectural products (GX 48, R. 1584);⁹ and Rea Magnet Wire Company, Inc., a manufacturer of magnet wire, with sales of \$25 million in 1959 (*ibid.*; GX 41, R. 1567; GX 44, R. 1572). Alcoa's unwillingness to duplicate the expertise, facilities, and marketing organization it had acquired from Rome, and also the pendency of this antitrust litigation, discouraged further acquisitions. Thus Alcoa rejected merger proposals it received from other manufacturers of wire and cable.

⁸ But see *Aluminum Company of America v. Federal Trade Commission*, 284 Fed. 401 (C.A. 3), and *United States v. Aluminum Company of America*, 44 Supp. 97, 106, 188-189 (S.D.N.Y.).

⁹ The government is presently attacking this merger as a violation of Section 7 of the Clayton Act. *United States v. Aluminum Company of America*, Civil No. 61 C 147(2) (E.D. Mo.).

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(R. 959-960; R. 1109-1111; GX 250-254, R. 2352-2357; GX 261, R. 2362; GX 264-266, R. 2373-2375)

In 1958, the last year prior to the merger, Alcoa was the leading producer of aluminum conductor, with 27.8 percent of the market (GX 434, R. 2713). In the field of insulated and covered aluminum conductor, Alcoa ranked third, with 11.6 percent of the market (GX 436, R. 2717). In bare aluminum conductor and ACSR—the other component of the broader aluminum conductor line—Alcoa led the industry with 32.5 percent of the market, (GX 435, R. 2715).

Rome.—Rome Cable Corporation was incorporated in 1936 and began business in Rome, New York, as a fabricator of copper conductor wire and cable. By the time it was acquired twenty-three years later, Rome had acquired two additional plants, at Collegeville, Pennsylvania, and Torrance, California, and had grown into one of the nation's largest and most important independent fabricators of aluminum and copper wire and cable products. One year after its incorporation, Rome reported assets of \$1.9 million and annual sales of \$1.8 million; on March 31, 1958, a year before its acquisition, Rome's assets had increased to \$24 million and its annual sales to \$40.6 million (GX 9, R. 1400, 1405, GX 17, R. 1493, GX 47, R. 1577). In the five years preceding the acquisition, Rome's sales averaged \$47 million annually (GX 7, R. 1346).

Rome enjoyed an excellent reputation in the trade because of its broad range of high-quality aluminum and copper conductor and accessory products, its

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high degree of technical skill, and its substantial achievements in research and development. It was not only a substantial producer of aluminum conductor (GX 436, R. 2717), but also one of the nation's ten largest manufacturers of copper conductor (R. 1314). It produced both bare conductor and "a diversified line" of insulated conductor, both copper and aluminum, as well as companion products such as conduit and cable support devices. This range of conductor and accessory products compared favorably with the offerings of other independent fabricators, was much broader than Alcoa's, and constituted an important competitive asset—one which Alcoa was particularly eager to acquire (R. 33, 393, 473, 666, 1055, 1057, 1077; Fdg. 16, R. 1285; Fdg. 21(a)(b), R. 1286-1287; GX 7, R. 1346; GX 158, R. 2171; GX 161, R. 2179, 2183).

Rome possessed an outstanding marketing organization, with a nationwide network of salesmen, warehouses and distributors. While it was not the company's policy to initiate price-cutting, Rome was, in the words of its president, an "aggressive competitor" (R. 937; see GX 227, R. 2273). Following the merger, the marketing of all electrical conductor and conduit produced either by Alcoa or by Rome plants was assigned to Rome personnel (R. 1063-1064; GX 6, R. 1343, R. 1536; GX 52, R. 1743; GX 370, R. 2533). Thus, all of Alcoa's aluminum conductor products—products in which it had led the industry for a number of years—were henceforth to be distributed by Rome's sales organization.

In other ways, too, Rome was a leading wire and cable company. It began operations as the only independent conductor fabricator with its own copper rod-rolling mill (R. 930; GX 52, R. 1742); and was one of the first fabricators of copper wire and cable to develop facilities for the production of aluminum rod (GX 52, R. 1742). As one of four independent fabricators which were integrated backward through the aluminum rod-making stage (R. 226, 403-404; R. 545; R. 991), Rome produced both aluminum and copper rod for its own use and for resale to others (Fdg. 16, R. 1285). Thus while most independents must buy aluminum rod, an intermediate product, for drawing into wire, Rome was able to buy aluminum ingot, the primary product—a significant competitive advantage (R. 72, 545).

Rome was also noted for its outstanding research activities and technical know-how, particularly in the field of insulated aluminum conductors (R. 1073, 1314, 1321; GX 7, R. 1346). It was Rome which developed the most popular service drop cable in use today (R. 671-673, 936). In the year before the merger, the company opened the Rome Research Center, a \$675,000 facility, to expand its research program and stimulate the development of new products (GX 7, R. 1346; GX 132, R. 2057).

In 1958, Rome shipped approximately \$21.2 million worth of copper conductor wire and cable (Fdg. 68, R. 1296) and \$2.2 million worth of aluminum con-

ductor wire and cable (Fdg. 68, R. 1296). It accounted for 1.3% of the market in aluminum conductor (Fdg. 45(a), R. 1292; GX 434, R. 2713), 3% in bare aluminum and 4.7% in insulated aluminum conductor (Fdg. 45(a), R. 1292; GX 435, R. 2715; GX 436, R. 2717). At the time of its acquisition, Rome employed approximately 1,500 persons. Its stock, held by about 2,500 persons, was traded on the New York Stock Exchange (GX 7, R. 1346). In the decade prior to the merger, Rome had acquired the assets of T. J. Cope, Inc., a Pennsylvania manufacturer of cable support devices, and of the Anderson-Carlson Manufacturing Co. of Torrance, California, whose plant Rome subsequently used for the manufacture of electrical conduit (R. 930; GX 23, R. 1511; Fdg. 16, R. 1285; GX 9, R. 1369-1370).

2. THE ALUMINUM CONDUCTOR INDUSTRY

The products.—In 1958, the national output of aluminum conductor wire and cable (aluminum conductor) was 226 million pounds, consisting of 175 million pounds (77 percent) of bare aluminum cable and ACSR (bare aluminum conductor) and 51 million pounds of insulated and covered¹ aluminum con-

¹ In the trade, an "insulated" conductor bears a larger amount of insulating material than a "covered" conductor. The insulating material on a "covered" conductor is primarily designed to fend off external damage, such as might result from contact with trees, although it also provides some degree of protection against the escape of electricity; the thicker insulating material on an "insulated" conductor renders complete protection against the escape of electricity.

ductor wire and cable (insulated aluminum conductor) (GX 434-436, R. 2713-2718). These products are designed almost exclusively for use by electric utilities in carrying electric power from generating plants to consumers throughout the United States. Copper is the only other material utilized commercially for the same general purpose. However, each metal has found, or is in process of finding, these particular utility applications for which it is peculiarly fitted from a commercial standpoint.

The 3,300 operating electrical utilities which presently purchase such wire have developed clear patterns of use for copper cable and for aluminum cable, both in transmission lines (the "wholesale" lines which carry current at high voltages to substations) and distribution lines (the "retail" lines which route the electricity at reduced voltages from the substations to the consumers). Both types of lines are usually strung above ground, except in heavily congested areas, such as city centers, where they are run underground. Underground, where the conductor must be heavily insulated, copper has always been and remains today virtually the only conductor used (GX 468, R. 2746). Overhead, where transmission and some distribution lines are bare and other distribution lines are less heavily insulated, aluminum has "virtually displaced," or is rapidly displacing, copper conductor in all except seacoast areas, where aluminum's vulnerability to corrosion bars its use (R. 65, 173-176, 207-

209, 224, 392-393, 630-632, 997; Fdg. 24, R. 1288; GX 468, R. 2737, 2740; GX 469, R. 3205; GX 474, R. 3206). By 1950, 74.4 percent of all additions to overhead transmission lines were being constructed with bare aluminum conductor or ACSR (aluminum cable, steel reinforced); by 1959, this figure had increased to 94.4 percent (GX 468, R. 2740). As the district court found, bare aluminum conductor "has practically displaced copper for use in overhead transmission lines" (R. 1316). For ease of reference, the rapid changover from copper to aluminum in the two overhead fields is charted in the following table (GX 468, R. 2740):

Percent of Aluminum Conductor in Gross Additions to Overhead Utility Lines.

	1950	1955	1959
Transmission Lines (All Bare Conductor)	74.4%	91.0%	94.4%
Distribution Lines, Bare Conductor	35.5	64.4	79.0
Insulated Conductor	6.5	51.6	77.2
Total, Transmission and Distribution Lines	25.0	60.9	80.1

Aluminum conductor has achieved its present stature as the dominant overhead conductor primarily because, in both bare and insulated forms, it is substantially cheaper than comparable copper conductor (R. 63, 160-161, 177-178, 182, 210, 218-219, 297-299, 390-393, 1225-1229). For example, as of January 1, 1961, the prevailing price of a representative insulated aluminum weatherproof conductor was \$73.50 per 100 feet, while a copper conductor of equivalent conductivity cost \$115.83. Similarly, a representative aluminum service drop cable and its copper equiv-

alent cost \$114.00 and \$206.00, respectively (R. 1228, 1229). This price differential is a function of the peculiar characteristics and disparate prices of the two primary metals. One pound of aluminum conducts the same amount of electricity as two pounds of copper (R. 182; GX 50, R. 1650; GX 366; R. 2510).⁹ Thus, even were the prices of aluminum and copper identical, pound for pound, aluminum is still only half as expensive a conductor metal (R. 160, 182).¹⁰

In addition to the substantial price advantage of aluminum conductor over copper conductor, the cost of a completed overhead line constructed with aluminum is less than the cost of a comparable line constructed with copper. This is so, whether the overhead line is bare or insulated (R. 210, R. 298-299).¹¹

⁹ Aluminum is roughly a third as heavy as copper but possesses about 62 percent of the conductivity of copper; as a result, an aluminum cable will be larger in volume but lighter in weight than a copper conductor of equivalent conductivity (R. 974; GX 32, R. 1543; GX 50, R. 1650; GX 366, R. 2512-2513).

¹⁰ For a comparison of aluminum and copper prices see GX 467, R. 2736. It is notable that the price of aluminum has remained reasonably steady while the price of copper has been subject to rapid and substantial fluctuations (R. 50, 548, 1072; GX 9, R. 1365; GX 373, R. 2546).

¹¹ A 1959 study by the Consolidated Edison System of New York City concluded that for "relatively short extensions" of 300 to 2000 feet to existing copper overhead lines, and for service drop cable, "there appears to be little, if any difference between the [completed] costs of aluminum extensions

While the price of the aluminum conductor is the measure of its over-all economic advantage in overhead distribution lines, there are additional sources of savings in overhead transmission lines—notably, aluminum's lighter weight (per given conductivity), which allows the use of fewer supporting structures, and its larger area, which reduces corona loss (the escape of electricity into the atmosphere) (R. 161-162, 298).

For a utility to switch from copper to aluminum or vice versa is an expensive undertaking. Aluminum and copper conductors differ in strength, resistance to nicking, tendency to extrude under pressure, flexibility, and other technical characteristics (R. 185-186, 419-420; GX 32, R. 1543; GX 50, R. 1713-1714, 1727, 1729-1731). Because of the galvanic corrosion

and copper extensions at the current cable prices and with available splicing techniques" (AR. 76, R. 3472). Accordingly, Xenis, an engineer for Consolidated Edison, testified that the company "[was] not saving money" in using aluminum for overhead distribution, despite the lower cost of the conductor itself (R. 712). He went on to say, however, that the system covering New York City is "not exactly typical", that the "little pieces" it adds to its overhead system are shorter than the additions or new construction undertaken by other distribution systems, and that savings in completed line cost resulting from the use of aluminum increase with the length of the new line (R. 713, 714, 716). Moreover, in 1960, a year after this study was made, Consolidated Edison switched to insulated aluminum conductor for service drop cable, to "take advantage of the savings which * * * were in favor of [aluminum] service drops" (R. 712).

between the two metals, it is impossible to connect one to the other without specially designed connectors (R. 176). Accordingly, a shift from one conductor metal to the other requires the retraining of line crews in new installation techniques, the use of special connectors, the warehousing of a new stock of cable replacements, and the redesigning of construction specifications (R. 173, 176, 186, 213-215). Utilities, therefore, do not "flip back and forth from one conductor to another" (R. 212). They would abandon aluminum and return to copper only if the relative prices of the two metals altered sufficiently to reverse the present relationship of completed line costs, and even then only if they were convinced that the reversal would be reasonably permanent (R. 212, 301). No such development is anticipated in the foreseeable future (R. 212-213, 217, 299).

In electrical conductor applications other than overhead transmission and distribution, aluminum has physical disadvantages which prevent it from competing effectively with copper. As one utility executive explained (R. 300):

[W]here aluminum has advantages aside from price * * * is in transmission overhead. Under-ground, aluminum, aside from price, has only disadvantages. Because of its greater size for given conductivity it requires more insulation. Insulation is expensive. So the non-conductor part which is a material part in cables [is] where the costs concerned have increased. Its

greater size tends to require larger ducts which are expensive so it has no inherent advantage in use for underground cable. In fact, it has inherent disadvantages * * *.

Thus, for underground transmission and distribution of electricity, and for communication cable, aluminum is seldom employed (R. 176, 183, 211-212, 997-998, 2741). Moreover, its larger size and greater brittleness discourage its use in magnet wire and fine wire applications (e.g., electrical coils and motor windings (R. 433-435, 998)), shipboard cable (R. 419); switchboard and control cable (R. 420-421), battery cable and other automotive wiring (R. 221), flexible cords (R. 223, 275, 999; GX 267, R. 2380), portable power cable (R. 420; GX 375, R. 2580), or welding cable (R. 420). Because of its larger size and the connection problems it raises, aluminum has gained only limited acceptance in the building wire field (R. 235, 274, 418-419, 539). In short, while aluminum conductor now dominates the overhead field, copper remains virtually unrivaled in all other conductor applications.

As the district court found, aluminum and copper conductors sell at different prices and there is no price sensitivity between them (R. 63, 392, 435-436, 1316; see GX 467, R. 2736). Each conductor responds to changes in the price of its primary metal, but not to changes in the price of the other conductor (R. 391, 435-436, 506; 857-858; GX 354-355, R. 2465).

Differences in the economics of aluminum and copper conductors were reflected in appellees' agency agreements, which employ separate categories, and provide for different sales terms and commission rates for each conductor (GX 233, R. 2302; GX 243, R. 2343; GX 270-274, R. 2383-2398; GX 365, R. 2502; GX 369, R. 2528). Some of appellee's distributors handle only copper conductors while others are primarily concerned with aluminum conductors (GX 370, R. 2533).

Finally, Alcoa and other aluminum conductor fabricators concern themselves with competition from one another but do not follow in the same fashion the sales successes of copper conductor fabricators (R. 412, 683-684, 686; GX 353, R. 2462; AR. 29a; R. 3343).

The structure of the industry.—As previously noted, in 1958, the year prior to the merger, Alcoa was the largest producer of aluminum conductor, with 27.8% of the market, and the third largest producer of insulated aluminum conductor, with a market share of 11.6% (Fdg. 45(a), R. 1292). In the same year, Rome's market shares were 1.3% in aluminum conductor and 4.7 % in insulated aluminum conductor (*ibid.*). Thus, the merging companies together accounted for 29.1% of aluminum conductor and 16.3% of insulated aluminum conductor (*ibid.*). In 1961, three years later, Alcoa-Rome, operating as a single company, accounted for 24.8% of the aluminum con-

ductor market and 13.0% of the insulated aluminum conductor market (*ibid.*).¹¹

In 1958 sales of aluminum conductor were distributed as follows. (GX 434, R. 2713):

Alcoa	27.8%
Kaiser	23.1%
Anaconda	15.8%
Reynolds	10.4%
General Cable	6.0%
Olin Mathieson	4.5%
Essex	4.5%
Southwire	2.3%
Rome	1.3%
 Total, above nine companies	95.7%
All other producers	4.3%

Thus, the five integrated producers (Alcoa, Kaiser, Reynolds, Anaconda, and Olin Mathieson)¹² accounted for 81.6% of the market (see GX 438, R. 2719; cf. R. 1322), while four fabricators (General Cable, Essex, Southwire, and Rome) shared an additional 14.1%.

¹¹ In 1954, Alcoa's share was 42.8 percent of aluminum conductor and 10.0 percent of insulated aluminum conductor; in the same year Rome's shares were 1.1 percent and 6.9 percent, respectively (Fdg. 45(a), R. 1292).

¹² Ormet, Inc., a primary aluminum producer, is one-half owned by Olin Mathieson (GX 438, n. 5, R. 2720).

In the field of insulated aluminum conductor, a similar pattern of concentration prevailed, with 1958 sales distributed as follows (GX 436, R. 2717):

Kaiser	26.8%
Anaconda	16.9%
Alcoa	11.6%
General Cable	9.5%
Essex	6.1%
Olin Mathieson	5.3%
Reynolds	4.8%
Rome	4.7%
Southwire	2.5%
Total, above nine companies	88.2%
All other producers	11.8%

The five integrated producers thus accounted for 65.4% of insulated aluminum conductor and the four listed independents for another 22.8%.

While the district court found that there were 29 producers of insulated aluminum conductor in 1961 (Fdg. 54, R. 1294), only 11 of the companies referred to by the court¹³ had market shares of 1% or more in 1959, the latest year for which statistics are available: Kaiser (23.8%), Anaconda (18.8%), Alcoa-Rome (16.6%), General Cable (10.4%), Olin Mathieson (4.5%), Reynolds (4.4%), Essex (4.1%), Southwire (3.9%), General Electric (1.5%), Circle (1%), and Central.¹⁴ Of the other listed companies,

¹³ The finding of 29 insulated aluminum companies is based upon AR 5 (R. 3229), a Commerce Department directory.

¹⁴ The market shares of all but the last of the listed companies appear in GX 436 (R. 2717). Central, which supplied the government no information concerning its sales, is assumed to have been a substantial producer of both aluminum conductor and of insulated aluminum conductor (R. 75, 387).

three had 1959 market shares of less than one percent;¹⁵ one (Westinghouse) produced less than 100 pounds of insulated aluminum conductor; and another (Western Electric) produced none at all (GX 436; R. 2717-2718). By the time of trial, five more listed companies (Crescent, Triangle, Collyer, Hudson, and Narragansett) were out, or "almost completely out," of the field (R. 242-243, 273, 422-423, 433, 536-537), while another seven (Belden, Electric Auto-Lite, Hatfield, Kerite, National Electric Products, Simplex, and Surprenant) did not make the aluminum conductor products principally used in overhead distribution lines (R. 1245, 1087-1088). The last of the 29 listed companies, Texas Wire and Cable Co.,¹⁶ the defunct subsidiary of Narragansett, *supra* (R. 536-537, 546).

The district court also found that more than 200 companies manufacture and sell electrical wire and cable (Fdg. 81, R. 1299). This total, however, includes all companies engaged in any phase of the business; *e.g.*, the manufacture of enameled magnet wire or submarine cable (AR 71, R. 3425; AR 73, R. 3441). Appellees listed but 21 companies as producers of the aluminum or copper insulated conductors principally used in overhead lines (R. 1245).

In the period 1955-1961, there was a substantial increase in the portion of the aluminum conductor and the insulated aluminum conductor markets shared by integrated producers. In 1955 the three then

¹⁵ Hendrix (.9%), Okonite (.6%), and Walker Bros. (.3%) (GX 436, R. 2717-2718).

existing primary aluminum producers (Alcoa, Reynolds, and Kaiser) accounted for 66.5% of the aluminum conductor market (GX 438, R. 2719). By 1958, five integrated producers (Alcoa, Reynolds, Kaiser, Anaconda, and Olin Mathieson) accounted for 81.6% of that market (*ibid.*). These same companies shared 82.1% in 1961 (AR 61, R. 3412). In the insulated aluminum conductor field, three integrated companies had 39% of the market in 1955, and five had 65.4% and 66.5% in 1958 and 1961, respectively (GX 440, R. 2723; AR 60, R. 3411). These increases—15.6 percentage points in aluminum conductor and 26.4 percentage points in insulated aluminum conductor—resulted, in part, from (1) the backward integration of Anaconda, a wire and cable fabricator which expanded into primary aluminum production in late 1955 (GX 438, R. 2719); and (2) a series of acquisitions by primary producers of previously independent aluminum conductor fabricators.

In 1957, Olin Mathieson acquired Southern Electrical Corporation, an independent which in the previous year had market shares of 8.1% in aluminum conductor and 6.1% in insulated aluminum conductor (Fdgs. 47-48, R. 1293; GX 434, 436, R. 2713, 2717). Also in 1957, Kaiser acquired the Bristol, Rhode Island, wire and cable plant of the U.S. Rubber Company, which in 1956 accounted for .8% of aluminum conductor shipments and 3.2% of insulated aluminum conductor shipments (*ibid.*).¹⁴ The Alcoa-

¹⁴ The government has filed suit to invalidate this merger under Section 7 of the Clayton Act. *United States v. Kaiser Aluminum and Chemical Corporation*, Civil No. 2795 (D. R.I.).

Rome merger came in 1959, and in 1961, partially in response to the Olin-Southern, Kaiser-Bristol and Alcoa-Rome mergers, Reynolds acquired the wire and cable facilities of John A. Roeblings' Sons Division of the Colorado Fuel and Iron Company, a small fabricator (Fdgs. 47-49, R. 1293; GX 387, R. 2606; GX 396, R. 2620). Finally, in February 1963, after the district court had rendered its decision in this case, Aluminium Ltd., a Canadian primary producer, announced the acquisition of Central Cable Corporation, a substantial independent (see n. 14, p. 20, *supra*).¹¹

The independent fabricators have experienced difficulties in competing against the integrated producers. From time to time, they have been affected by shortages of aluminum (R. 384, 387, 492-493, 958) and by "price squeezes," i.e., reductions in the price margin between primary or semi-finished aluminum and fabricated aluminum conductor (R. 69, 389-390, 399-402, 411-412, GX 96, R. 1940; GX 245, R. 2345; GX 422-433, R. 2699-2712; AR 57, R. 3407). Alcoa has been cognizant of "the problem of selling ingot or intermediate products to customers who were also competitors in the sale of the finished product" (R. 1113; see GX 191, R. 2231), and through its pricing policy has attempted, unsuccessfully, to maintain an adequate margin for independent fabricators (R. 1113-1116; see also R. 832-833; cf. R. 1119-1120 and GX 191, R. 2231). Nonetheless, between 1955 and 1961, a number of fabricators discontinued, or materially curtailed,

¹¹ Another primary aluminum producer, Harvey Aluminum Company is presently considering entry into the aluminum conductor field by acquisition of an existing manufacturer (R. 474).

their aluminum conductor production because of inability to operate profitably within this price margin.¹⁸ During this same period of time, only one new producer ¹⁹ entered the aluminum conductor field (other than by acquisition) (GX 442, R. 2727), and three existing independents expanded their production facilities (R. 75, 406, 984-985). One of the three was Central Cable Corporation, since acquired by an integrated producer (*supra*, p. 23).

3. THE MERGER

The Alcoa-Rome merger had its genesis in the early 1950's, when aluminum conductor was first coming into its own (GX 468, R. 2740). In 1950-1951, when both copper and aluminum were scarce, Rome was one of eight producers to receive government allocations of aluminum for the fabrication of insulated conductor (R. 695, 937). Rome thereupon entered the aluminum conductor field and began fabricating covered line wire and service drop cable from bare aluminum cable which it purchased readymade (R. 696; GX 54, R. 1761). As copper prices increased

¹⁸ Collyer, which in 1956 produced 258,145 pounds of aluminum conductor, both bare and insulated, produced 56,463 pounds in 1960 (R. 422). Triangle, which produced 368,000 pounds of aluminum conductor in 1956, entirely discontinued aluminum conductor production in 1961 (R. 242-243). The aluminum conductor production of Essex experienced a substantial decline, beginning in 1959 (R. 225-226). Narragansett, which in 1956 organized and equipped a subsidiary corporation, Texas Wire and Cable Co., to make insulated aluminum conductor, abandoned the enterprise before production even began (R. 536-537). See also the experience of Crescent (R. 273).

¹⁹ Hatfield Wire and Cable Division of Continental Copper and Steel Industries, Inc.

(GX 467, R. 2736) and aluminum conductor became more popular (GX 468, R. 2740), Rome expanded its aluminum conductor operations. In 1953 it began drawing its own aluminum wire and stranding its own aluminum cable (R. 696); by late 1953 it was making its own aluminum rod, selling both a full line of covered aluminum line wire and service drop cable, and a limited line of bare aluminum conductor. (R. 697; GX 80, R. 1867; GX 86, R. 1901).

Also in the early 1950's Alcoa determined that it was "dragging behind in the parade" because it lacked a line of insulated aluminum conductor (R. 1077). Lacking the technical skills necessary to make this product unassisted, it approached Rome. In late 1951, Alcoa's vice president for sales visited the chairman of Rome's board of directors, and, as he described it:

• • • told him we were lamentably behind
• • • in covered insulated wire and cable and
asked him if we could make some arrangement whereby they, Rome Cable, would supply us with technical assistance and know how.
(R. 1078.)

Ensuing discussions with Rome convinced Alcoa that the manufacture of insulated conductor was even more difficult than it had assumed (GX 71-72, R. 1836-1847); accordingly, it postponed plans to make insulated aluminum conductor on its own (GX 76, R. 1854). Instead, on March 7, 1952, it entered into a "tolling" arrangement with Rome, under which bare aluminum conductor would be shipped by Alcoa to Rome, fabricated by Rome into polyethylene and

neoprene covered line wire and service drop cable, and returned to Alcoa for sale as an Alcoa product (R. 1078; GX 28, R. 1536). Pursuant to this arrangement, Rome produced all of Alcoa's insulated aluminum conductor until 1955. In that year Rome made 4,349,000 pounds of insulated aluminum conductor (10.8% of the market) for sale by Alcoa and 2,728,000 pounds (6.9%) for its own sales (GX 436, R. 2717).

In 1955, Rome increased its neoprene insulating facilities at Alcoa's request (GX 30-31, R. 1538-1539) and at the same time expanded its own aluminum conductor operations independent of the tolling arrangement. In that year it launched a program to increase its aluminum conductor capacity and to double its aluminum rod-making capacity (GX 52, R. 1750; GX 96, R. 1938; GX 98-99, R. 1943-1944; GX 102, R. 1954; GX 104-105, R. 1977)—a program which was nearly completed two years later (GX 128, R. 2040). In addition to its insulated aluminum activities, Rome produced and actively solicited sales of ACSR (GX 81, R. 1870; GX 85, R. 1899).²² Moreover, on a number of occasions between its entry

²² In December 1958, a month before the merger was arranged, Rome applied to the Tennessee Valley Authority for a position on its approved list of ACSE suppliers, and an inspection of Rome's facilities was arranged by T.V.A. (R. 163). The immediate purpose of the request was to enable Rome to become an approved supplier of ACSR to the Knoxville Utilities Board and other southeastern utilities (R. 759-760, 785-786; GX 134, R. 2074; GX 135, R. 2076; GX 136, R. 2077). This request was withdrawn following the merger. (R. 163; GX 183-186, R. 2225-2227).

into aluminum conductor and its acquisition, Rome gave serious consideration to the expansion of its ACSR and bare aluminum cable production (R. 940-941; GX 91, R. 1922, 1924; GX 102, R. 1952; GX 118, R. 2010).

In 1955 Alcoa determined that its insulated aluminum conductor operations should become independent of Rome. As a first step in that direction, it installed equipment to fabricate polyethylene insulated cable and, by 1958, was able to satisfy most of its polyethylene requirements from its own production (R. 1079, 1096-1097; GX 141, R. 2092; GX 146, R. 2097). The second step was to be the installation of neoprene insulating equipment; with both polyethylene and neoprene insulating capacity, Alcoa would have been completely independent of Rome for insulated aluminum conductor. Beginning in 1957, Alcoa made neoprene studies,¹¹ and by March 1959, when Rome was acquired, it had already allocated funds for neoprene equipment and was considering a further allocation (R. 1079-1080; GX 155, R. 2165; GX 156, R. 2168; GX 269, R. 2382).¹²

Alcoa's plans for expansion in insulated conductor were not, however, limited to polyethylene and neoprene types. In 1957, as previously noted, Kaiser acquired the Bristol plant and Olin Mathieson acquired Southern Electrical (*supra*, p. 22). With these mergers, Alcoa believed its "No. 1 spot" in aluminum conductors to be endangered, particularly

¹¹ Following the merger, these expenditures were cancelled (R. 1131-1132; GX 155-156, R. 2165-2168).

by Kaiser, since Alcoa still lacked a full line of aluminum and copper conductors of its own manufacture (GX 150, R. 2127; GX 161, R. 2179; GX 168, R. 2193). It was felt that a full line was necessary (1) to diversify Alcoa's conductor business and allow it to satisfy all of its customers' requirements (R. 1055, 1080); (2) to attract and retain good distribution outlets (R. 1055); and (3) to encourage the expanded use of aluminum in insulated conductors, thereby enlarging the conductor market for primary aluminum (R. 1054, 1080).

Of the two methods by which it could obtain a full line—internal expansion or merger—Alcoa considered the latter to be easier, faster, less expensive, less risky, and less "obnoxious" to its competitors (R. 1056-1058, 1089, 1104; GX 162, R. 2185). Accordingly, Alcoa first attempted merger (R. 1059). Rome, with its excellent personnel and technical know-how was considered to be the best acquisition Alcoa could make and its absorption "the answer to the present Kaiser threat to push Alcoa out of first place in the electrical conductor field" (GX 161, R. 2183; see also GX 158, R. 2171). Thus, in October, 1957, Alcoa offered \$24,000,000 in Alcoa stock in an unsuccessful attempt to acquire Rome (R. 951, 952; GX 165, R. 2190). Similar efforts—these, too, unsuccessful—were made to acquire other companies (GX 398-408, R. 2621-2640).

When it appeared that all of Alcoa's merger attempts had failed, it turned its attention to internal

expansion. In October 1958, Alcoa's president ordered that plans begin for—

* * * a rounded out program well beyond the neoprene stage and a program which * * * would * * * keep us in the No. 1 spot in the aluminum conductor field, and, if necessary, a sufficient factor in the copper field to help maintain the No. 1 position in the aluminum field. (R. 1061; GX 168, R. 2194, see also GX 169, R. 2195.)

An Alcoa task force worked out plans for a new plant to produce insulated aluminum and copper conductor, setting ~~as~~ its target 5% of the insulated wire and cable market (GX 170-173, R. 2195-2206; GX 175, R. 2206; GX 178, R. 2208). It was anticipated that this expansion program would have cost about \$35-\$40 million and taken five to ten years to accomplish (R. 1089-1090, 1126). These plans, however, were never passed upon by Alcoa management (R. 1064),²² for merger negotiations were renewed with Rome and this time proved successful (R. 952). On March 31, 1959, 355,226 shares of Alcoa stock, worth about \$34 million, were exchanged for all the assets of Rome (Fdg. 6, R. 1284; GX 7, 1345; GX 9, R. 1427).²³ Since that time Rome has been operated as an Alcoa subsidiary (Fdg. 4, R. 1283).

²² Alcoa's vice president for sales testified that he would not have recommended approval of this program (R. 1090); Alcoa's president did not testify as to what his decision on the program would have been (R. 1056-1057; but see GX 169; R. 2195).

²³ The transfer was accomplished through the formation by Alcoa of a subsidiary corporation, the Rome Cable Corpora-

4. PROCEEDINGS BELOW

The government's complaint, filed April 1, 1960, charged that the acquisition violated Section 7 of the Clayton Act because of its impact upon competition in various conductor and accessory product lines (R. 1). Pending final adjudication on the merits, the district court enjoined Alcoa from encumbering the stock of its Rome subsidiary, and from further transferring operations from Rome to any other plants of Alcoa. At trial, the government claimed that the forbidden anticompetitive effect would be felt in ten "lines of commerce", only two of which—aluminum conductor (consisting of both bare and insulated types) and insulated aluminum conductor—are involved in this appeal.

After trial, the district court dismissed the complaint (R. 1304). The court concluded that aluminum conductor and insulated aluminum conductor were not appropriate submarkets for assessing the impact of the merger, and that in any event the merger lacked the prohibited anticompetitive effect in any asserted line of commerce (Conc. 3, 8, R. 1302, 1303; R. 1316-1317, 1333).

The court found bare aluminum conductor and ACSR to be a "line of commerce" within the meaning of the statute (Conc. 2, R. 1301-1302; R. 1316). But it denied this status to insulated aluminum conductor, finding that the latter is functionally inter-

tion of Delaware, to which was transferred all the assets, business and good will of the Rome Cable Corporation of New York. The New York corporation was thereupon liquidated.

changeable with insulated copper conductor, that the purchase and use of insulated aluminum or insulated copper is dictated principally by economic factors, that insulated aluminum conductor and its copper equivalent can be produced by the same facilities, and that insulated aluminum conductor is not recognized in the industry as a separate economic entity, has no distinct customers, and lacks specialized vendors (R. 1316). Although finding that the aluminum and copper products sell at different prices and that these prices are not sensitive to one another, the court concluded that insulated aluminum conductor is "in actual competition with its copper counterpart", and therefore could not be considered a "line of commerce" (*ibid.*). Having so concluded, the court further held that aluminum conductor (the broader product group including both insulated and bare aluminum conductor) "cannot result in a line of commerce" (*ibid.*), since a line of commerce cannot be composed of two parts, one of which independently qualifies as a line of commerce and one of which does not.

Turning to the issue of probable competitive effect, the district court found that Alcoa's purpose in acquiring Rome was to secure the special competence which Rome had developed in the insulated cable field and which Alcoa admittedly lacked (R. 1321); that the concentration of about 80 percent of the aluminum cable market in the five integrated producers "loses its significance when it is realized that the production of aluminum and the fabricating of its products were concentrated to the point of a monopoly

less than twenty years ago and has undergone a gradual decentralization by the entry of new producers and fabricators since that time" (R. 1322); and that acquisitions in the aluminum cable field by other integrated producers, which preceded and followed the Alcoa-Rome merger, do not constitute a "significant pattern or trend of merger," especially in view of the post-merger declines suffered by the merging parties (*ibid.*; Fdg. 46-48, R. 1293).

The court found no serious barriers to entry in the insulated aluminum market, noting that the number of producers had increased in ten years from four to twenty-nine, and that most of the new entrants had come from the copper field (R. 1323). It also relied upon the absence of any complaints concerning the "actual or potential effect of the acquisition upon suppliers and purchasers," and upon testimony from certain aluminum cable competitors and purchasers that no adverse effect had been felt (R. 1326, 1330). Finally, taking into account the declining market shares held by Alcoa, both before and after the Rome acquisition,²² a decline in the rate of return on Alcoa's invested capital, and the increase in the number and market shares of other primary aluminum producers and cable fabricators, the court concluded that Alcoa does not enjoy a "dominant" position (R. 1327).

²² See *supra*, pp. 18-19.



SUMMARY OF ARGUMENT**I**

If the Alcoa-Rome merger stands, its principal effects will be felt in the aluminum conductor and the insulated aluminum conductor markets. Both product groups are appropriate lines of commerce distinguishable from their copper counterparts, largely on the basis of price. For overhead transmission and distribution of electricity, aluminum conductors (both bare and insulated) are substantially cheaper than comparable copper conductors. Moreover, aluminum and copper prices are unrelated and unresponsive to each other. As a result, aluminum has rapidly become the dominant overhead conductor. In all other conductor applications, however, copper remains the dominant conductor. Aluminum's price advantage is restricted to the overhead field and its physical characteristics constitute substantial impediments to its use elsewhere. That aluminum and copper conductors possess such distinct end uses, as a result of these economic differences, is sufficient to distinguish them as separate Section 7 lines of commerce.

II

Taking aluminum conductor and insulated aluminum conductor as the appropriate lines of commerce,

we base our attack upon the merger upon two propositions:

First, Alcoa is a leading firm in markets in which economic power is already highly concentrated.

Second, any acquisition of a significant competitor by one of the few dominant firms in a market in which economic power is already highly concentrated may tend "substantially to lessen competition" within the meaning of Section 7 of the Clayton Act, even though the acquired firm has only a relatively small share of the market.

A. There can be doubt either as to Alcoa's leading position or as to the highly concentrated character of the relevant product markets. In aluminum conductor, the broader line of commerce, Alcoa led the industry with a premerger market share of 27.8%. With its leading integrated competitor (Kaiser), it controlled 50% of the market; with its three leading competitors, more than 76%; only nine concerns—the five primary aluminum companies plus four independents (including Rome, with 1.3%)—accounted for 95.7% of the output of aluminum conductor. No other company whose statistics appear in the record claimed as much as 1% of the market. In the narrower market—insulated aluminum conductor—a similar pattern prevailed, except that Alcoa's third ranking share was somewhat lower (11.6%) and Rome's somewhat higher (4.7%).

B. The critical proposition upon which the present case turns, is that Section 7 is violated by any acquisition of a significant competitor by one of the leading firms in a market in which economic power is highly

concentrated, even though the acquired company's share of the market is relatively small. That proposition was endorsed in *United States v. Philadelphia National Bank*, 374 U.S. 321, 365, n. 42, where this Court stated that "if concentration is already great, the importance of preventing even slight increases in concentration and so preserving the possibility of eventual deconcentration is correspondingly great." That principle is dictated by the basic purposes of the 1950 amendments to Section 7 and is supported by the following reasons:

1. An acquisition such as this threatens competition by enhancing the power of a concern which already controls an undue share of the market. On the eve of the acquisition, Alcoa controlled 27.8% of the aluminum conductor market; the acquisition added 1.3%. In the *Philadelphia Bank* case, this Court observed that a market share of 30% by the combined merging companies clearly represented an undue threat to competition, and it noted, citing the views of economists, that a smaller percentage might also be excessive.
2. In an industry where the number of sellers is few, the competitive significance of each company is correspondingly great and transcends its bare market percentage. In the present case the market shares of the acquired company—1.3% in aluminum conductor and 4.7% in insulated aluminum conductor—may not appear great in absolute terms, but loom larger when it is observed that in the aluminum conductor market there were not more than a dozen companies which could account for as much as 1% of

industry production in any one of the five years for which statistics appear in the record. Rome was consistently one of those companies. In addition, Rome, though not a price innovator, was nonetheless shown to be an "aggressive competitor." Its broad line of high-quality wire and cable products, its special aptitude and skills in the field of insulation, and its "active and efficient research department and sales organization"—all acknowledged by the court (R. 1313)—had earned it an outstanding reputation in the industry. The effectiveness of its marketing organization is testified to by the decision of Alleoa to make Rome the vehicle for distributing not only the insulated conductor in which Rome was the acknowledged specialist, but the entire conductor line of both companies. Enterprises of such demonstrated quality and high repute cannot easily be replaced by new entrants to the market, and their elimination is plainly a substantial loss to competition.

3. The presence in the market of small but significant concerns such as Rome is important not only as a check upon the dominant leaders in a concentrated market, but also because it preserves the possibility of eventual deconcentration. If the leaders can buy up small competitors before they have an opportunity to grow, justifying the purchase on the ground that the statistical change in market shares is quantitatively small, then it is easy to perpetuate oligopoly and preclude any possibility of the restoration of greater competition.

4. If, as *Brown Shoe Co. v. United States*, 370 U.S. 294, makes clear, a small acquisition in a highly dispersed industry is banned by the statute on the ground that it might constitute a step on the road to oligopoly, a comparable or more substantial acquisition by a leading company in an industry which is much further along that road plainly stands upon no better footing. Indeed, the more advanced the oligopoly, the more objectionable each step becomes and the more urgent that the policies of the Clayton Act be brought into play. In an oligopolistic industry, moreover, there is an inherent likelihood that an expansionary move by any of the few dominant firms will ~~introduce~~ a defensive or retaliatory counteraction by its principal competitors. That very process is unfolding in the aluminum conductor fields, where the absorption of Rome by Alcoa was one of the five acquisitions by producers of primary aluminum since 1957.

ARGUMENT

The primary issue in this case concerns the standards to be followed in applying Section 7 of the Clayton Act to a significant acquisition by the industry leader in an already highly oligopolistic product market. At the threshold, however, there is a controversy as to the appropriate product markets—"lines of commerce"—in which to test the impact of the merger upon competition. In Point I, we deal with the threshold question—the scope of the relevant markets. In Point II we come to the question whether, in those markets, the acquisition may have had the anti-competitive effect banned by the statute.

I

ALUMINUM CONDUCTOR AND INSULATED ALUMINUM CONDUCTOR ARE APPROPRIATE "LINES OF COMMERCE" WITHIN WHICH TO APPRAISE THE IMPACT OF THE MERGER

In the district court the government contended that the acquisition of Rome by Alcoa eliminated competition in a number of product markets and submarkets, all within the general field of conductor wire and cable. Some of these markets—including (1) conductor wire and cable (both bare and insulated, aluminum and copper), (2) insulated conductor (both aluminum and copper), and (3) bare aluminum conductor—were conceded by the defendant and found by the court to constitute “line[s] of commerce” within the meaning of the statute, but the requisite anti-competitive effect was found wanting. We do not argue against these conclusions here. In this appeal, our attack upon the merger is confined to two product lines: insulated aluminum conductor and aluminum conductor generally (both bare and insulated). As to each of these, the district court held (a) that the aluminum product was not a “line of commerce” separate and distinct from its copper counterpart, and (b) that in any case there was no reasonable probability that the acquisition would result in a substantial lessening of competition.

A. INSULATED ALUMINUM CONDUCTOR IS A “LINE OF COMMERCE”

In holding that insulated aluminum is not a submarket competitively distinct from insulated copper, the court below misapplied the guidelines laid down

by this Court in *Brown Shoe v. United States*, 370 U.S. 294. Ticking off the "practical indicia" listed in *Brown Shoe*, the court noted that producers do not regard the aluminum product as "a separate economic entity"; that the same equipment can be used to produce either the copper or the aluminum product; that both are sold to the same customers (electric utilities); that there are no specialized vendors; and that, as a technical matter, the insulated copper product can be used wherever insulated aluminum is used. On the other hand, the court recognized that in the only application for which insulated aluminum is widely used—overhead distribution lines—the customers make their purchases solely on the basis of economic factors; that aluminum conductors are sold at prices distinct from copper; and that there is little price sensitivity between them. These latter factors, which we regard as decisive, were dismissed by the court on the ground that they did not destroy the conclusion "that covered aluminum wire and cable is in actual competition with its copper counterpart and may not be found as a line of commerce herein" (R. 1316). Apparently, therefore, the court considered that a finding that two products are "in actual competition"—without considering the degree of competition—necessarily precludes a ruling that either constitutes a separate line of commerce. This represents a clear misunderstanding of the *Brown Shoe* decision.

In *Brown Shoe*, the Court carefully pointed out (370 U.S. at 325) that while the outer boundaries of a product market must be broad enough to embrace all reasonably interchangeable substitutes, within those

boundaries there may exist well-defined submarkets which are themselves lines of commerce. This means, obviously, that two or more products—*e.g.*, insulated aluminum cable and insulated copper cable—though sufficiently competitive to be grouped together within a single product market, may at the same time be sufficiently noncompetitive to be treated as distinct submarkets. In other words, the degree of competitiveness which serves to justify the inclusion of several items in the same product line of commerce does not necessarily preclude their division into separate submarket lines. The district court plainly failed to appreciate this point, for it characterized as an “inconsistent position” the government’s contention that “insulated aluminum wire and cable is a line of commerce and therefore competitively distinct from insulated copper but * * * that insulated aluminum and insulated copper constitute a single line of commerce” (R. 1317). If the lower court’s view were correct, the distinction drawn in *Brown Shoe* between broad product markets and lesser included submarkets would be completely obliterated.

Had the court applied the proper standard, it could not have failed to recognize insulated aluminum conductor as a line of commerce distinct from its copper counterpart. The record establishes that insulated aluminum and insulated copper are competitive only in the general sense that both are used as conductors of electricity. In most applications, insulated aluminum is so intrinsically inferior to insulated copper that it enjoys virtually no consumer acceptance. (See pp. 16-17, *supra*). In the field of overhead dis-

tribution, however, aluminum has rapidly become the dominant conductor. For that purpose it is functionally interchangeable with insulated copper, but enjoys a decisive economic advantage, because primary aluminum is cheaper than primary copper and, pound for pound, will carry twice as much electricity. Consequently, the price of most insulated aluminum conductors is only 50 to 65% of the price of equally conductive copper products (R. 1225-1229), and the installed costs of overhead lines are also substantially less when insulated aluminum conductors are used (R. 210; R. 298-299). Because of this substantial price differential, aluminum has dramatically displaced copper in insulated overhead distribution lines, its share of total annual installations increasing from 6.5% in 1950 to 77.2% in 1959, the last year for which statistics were available at the trial (*supra*, p. 13). As of the date of the merger, therefore, "actual competition" between the two metals in the field of overhead distribution was rapidly disappearing—just as it had already disappeared in the field of overhead transmission, where bare aluminum, having almost completely displaced bare copper, was conceded by Alcoa and found by the court to be a distinct line of commerce.

The district court apparently gave considerable weight to the fact that in 1959 insulated copper conductor still comprised 22.8% of the gross additions to insulated overhead distribution lines (Fdg. 29, R. 1289; R. 1316), and to that extent remained a competitor. Had the change-over from insulated cop-

per to insulated aluminum progressed further by 1959, the court would presumably have recognized the latter as a separate submarket, for it found bare aluminum to be a "line of commerce" largely on the ground that it had "practically displaced copper for use in overhead transmission lines" (R. 1316; Fdg. 24, R. 1288). Yet the only real difference between the two processes of displacement is that the substitution of bare aluminum for bare copper in overhead transmission started much earlier; by 1950 bare aluminum already accounted for 74.4% of all additions to overhead transmission lines, while insulated aluminum amounted to only 6.5% of new overhead distribution lines. The record reveals an unmistakeable trend away from insulated copper in the overhead distribution field, which was just beginning in 1950, and still growing in 1959 (see GX 468, R. 2748), and there is no reason to doubt that it would have continued until aluminum had superseded copper to the same degree (94.4%) as it previously had in overhead transmission.²⁵ It is axiomatic that Section 7 demands an assessment of future, as well as present, conditions of competition. *Brown Shoe*, 370 U.S. at 332-333.

²⁵ That same government exhibit (GX 468, R. 2748) which showed that copper accounted for 22.8% of gross additions to insulated overhead distribution lines in 1959 also showed about the same relative use of copper in bare overhead distribution lines (21%). That the replacement of copper by aluminum had progressed to the same point in distribution line use, without regard to whether the line was bare or insulated, demonstrates that the trend to insulated aluminum was proceeding on a time schedule at least as rapid as that of the previous trend to bare aluminum in transmission lines.

In sum, there is only one area—overhead distribution—in which insulated copper conductors are to any appreciable extent “in competition” with insulated aluminum conductors, and even there the competition is rapidly vanishing. Utilizing a high-cost metal, fabricators of insulated copper cable are powerless to eliminate the price disadvantage under which they labor and thus can do little to make their product competitive (R. 224). Indeed, it is doubtful that they even try to be competitive, for, as the district court found, aluminum and copper conductor prices do not respond to one another. So wide is the price differential between the two insulated products that a relatively large increase in the price of aluminum conductor would be necessary before a significant number of customers would shift back to copper.²² Moreover, the change-over from one metal to the other is a costly operation, involving a variety of collateral expenses and usually entailing a long range, high-level policy decision. This feature may explain why some utility customers, having had no occasion as yet to make substantial additions to their systems, have not yet abandoned copper for aluminum. The same feature makes it clear that even if the existing price differential between the two conductors were unexpectedly eliminated, there would be no significant return to copper.

²² As of January 1, 1961, the prevailing price of a representative size of polyethylene insulated aluminum weatherproof wire was \$73.50 per thousand feet; polyethylene insulated copper of equivalent conductivity cost \$115.83. Comparable figures for a representative polyethylene insulated service cable were: aluminum \$114.00; copper \$206.00 (R. 1228-1229).

Accordingly, the availability of a copper substitute exerts little, if any, restraint upon the power of aluminum cable manufacturers to raise the price of their product.

Whether the separation of submarkets on the basis of price is economically and legally sound depends, of course, upon the competitive significance of the price differential in question. In *Philadelphia National Bank* this Court affirmed the lower court's finding that commercial banking is a line of commerce, despite the fact that in some services (e.g., the making of small loans) banks compete with other institutions. The Court observed that commercial banks enjoy "such cost advantages as to be insulated within a broad range from substitutes furnished by other institutions" (374 U.S. at 356). In *United States v. Bethlehem Steel Corp.*, 168 F. Supp. 576, 593 (fn. 35) (S.D. N.Y., 1958) Judge Weinfeld found hot and cold rolled steel sheets to be separate lines of commerce, distinguishing them from each other and from aluminum and copper sheets in part on the basis of price. For "their predominant uses," he found, they "cannot be economically replaced by other products." In *Reynolds Metals Co. v. Federal Trade Commission*, 309 F. 2d 223, 229 (C.A.D.C.), the court of appeals affirmed a Trade Commission finding that "florist foil" was a submarket distinct from other aluminum foil since it sold at 65 to 69% of the price of other foil. "Such a difference in price as appears on this record," the court observed, "must effectively preclude comparison, and inclusion in the same market, of products as between which the differ-

ence exists, at least for purposes of inquiry under Sec. 7 of the Clayton Act." And in *United States v. Corn Products Refining Co.*, 234 Fed. 964, 976 (S. D.N.Y.), a Sherman Act case, Judge Learned Hand rejected an argument that the defendant, a wet miller of corn, could not be guilty of monopolizing because of competition from dry millers. He said, "[i]f the wet process is cheaper than the dry, then, although a monopoly of the wet will be limited by the dry, it is improper to consider the production of the dry millers when ascertaining the proportion of production controlled by a supposed monopolist of wet milling." See also Kaysen and Turner, *Antitrust Policy* 101-102.

In the present case there can be no doubt but that the price differential between the aluminum and copper products was so substantial and so stable as to preclude effective competition between the two.

Contrary to the district court's belief, *Brown Shoe* is no barrier to this conclusion. There the appellant's contention was that the district court had erred by delineating the relevant submarkets (men's shoes, women's shoes, and children's shoes) too broadly and should instead have subdivided them further on the basis of price and quality differences. It was in response to that contention that this Court made the statement, cited by the court below (R. 1316), that the boundaries of the relevant market must be drawn with sufficient breadth to include all competing products. By this statement, the Court indicated its approval of broad lines of commerce encompassing all reasonably competitive substitutes, but it did not thereby rule out less inclusive submarkets as well.

This is not to say that the Court would have sanctioned further subdivision of the market in *Brown Shoe* itself; on the contrary, it characterized as "unrealistic" Brown's contention "that, for example, men's shoes selling below \$8.99 are in a different product market from those selling above \$9.00." (*Id.* at 326.) Thus the Court pointed up the lack of realism in any effort to put shoes into different "lines of commerce" where the difference in price might be as little as one cent per pair. In sharp contrast, insulated aluminum wire and cable, used in overhead distribution, is significantly cheaper than its copper equivalent. In most cases, as we have noted, insulated aluminum distribution cable sells at little more than half the price of its copper equivalent. Moreover, the purchaser of shoes selects among available alternatives with an eye not only to price but also to quality, style, and the intangible factor of how much of his income he chooses to spend on shoes; hence, two consumer products may be highly competitive, though disparate in cost. By contrast, a public utility's selection between insulated aluminum and insulated copper cable for use in overhead distribution lines is based almost exclusively on economic considerations (R. 1316), so that any significant difference in price is bound to reduce drastically the degree of competition, as in fact it did here. To put price to one side, as the district court did, is to ignore the single most important practical factor in this business—a result surely not consonant with this Court's decision in *Brown Shoe*.

B. ALUMINUM CONDUCTOR IS A "LINE OF COMMERCE."

The district court's conclusion that aluminum conductor (both bare and insulated) is not a line of commerce was predicated solely on the ground that insulated aluminum conductor, one of its two component submarkets, was not. We submit that aluminum conductor meets the criteria necessary to constitute a line of commerce and should be found to be such independent of any ruling on the insulated aluminum conductor issue.²⁷

Plainly it accords with the commercial realities of the electrical industry to combine bare and insulated types of cable in the same line of commerce, since both are used for the same broad purpose of conducting electricity, and both aluminum types are sold to the same customers, the electric utilities. Indeed, the district court so found (Fdg. 31, R. 1289). There remains only the question whether aluminum conductor and copper conductor are separable for the purpose of analyzing the competitive impact of the merger.

The same physical characteristics and cost considerations which differentiate the two insulated product lines also differentiate the broader conductor lines. Aluminum and copper wire and cable are made of metals having entirely different physical and electrical properties and wholly unrelated supply and

²⁷ It is improper to assume that the "whole" cannot be a line of commerce merely because the "part" is not. The steel industry, for example, might reasonably be found to constitute an appropriate line of commerce even if some particular steel product were found to be highly competitive, and therefore in the same submarket, with a particular non-steel product.

price patterns (*supra*, pp. 13-15). These factors determine the electrical uses to which the metals can be put. By virtue of their peculiar properties, aluminum and copper conductors have developed distinctive end uses—aluminum, both bare and insulated, as an overhead conductor, and copper as an insulated conductor for underground, indoor and other enclosed wiring, applications in which aluminum's brittleness and larger size render it impractical (*supra*, p. 15). In overhead transmission and distribution, fields in which aluminum is physically interchangeable with copper, the price differential between the two metals dictates the use of aluminum. And, as we have noted, there is no responsiveness between the price of aluminum conductor and that of copper conductor. It is only in a most restricted sense, then, that aluminum and copper compete with one another as electrical conductors. It follows that aluminum conductor, like aluminum insulated, is an appropriate "line of commerce" in which to appraise the effect of the merger on the structure of competition.

II

SINCE ALCOA IS ONE OF THE FEW LEADING FIRMS IN THE HIGHLY CONCENTRATED MARKETS FOR ALUMINUM CONDUCTOR AND INSULATED ALUMINUM CONDUCTOR, ITS ACQUISITION OF A SIGNIFICANT COMPETITOR VIOLATES SECTION 7.

Taking aluminum conductor and insulated aluminum conductor as the appropriate lines of commerce we base our attack upon the merger upon two propositions:

First, Alcoa is a leading firm in markets in which economic power is already highly concentrated.

Second, any acquisition of a significant competitor by one of a few dominant firms in a market in which economic power is already highly concentrated "may tend substantially to lessen competition" within the meaning of Section 7 of the Clayton Act, even though the acquired firm has only a relatively small share of the market.

If these propositions are sound, as we argue below, then Alcoa's acquisition of Rome violated Section 7.

A. ALCOA IS A DOMINANT FIRM IN THE MARKETS FOR ALUMINUM CONDUCTOR AND INSULATED ALUMINUM CONDUCTOR WHERE ECONOMIC POWER IS ALREADY HIGHLY CONCENTRATED

1. There can be no doubt either as to Alcoa's leading position or the highly concentrated character of the relevant product markets. Prior to the end of World War II, Alcoa was the sole producer of primary aluminum and the sole fabricator of aluminum conductor wire and cable. In 1945, the Second Cir-

cuit held that Alcoa had unlawfully monopolized the aluminum industry in violation of Section 7, and refrained from ordering dissolution only because of the possibility that the government's large wartime production facilities might be disposed of in such a way as to create competition. By the disposition of these surplus facilities, and later by granting subsidies (e.g., accelerated tax write-offs and supply contracts) during the Korean emergency, the government made possible the creation and growth of other aluminum producers—Kaiser, Reynolds, Anaconda, and Ormet—which competed with Alcoa and were integrated on a comparable scale. All of these companies rank among the largest industrial corporations in the United States.²² All of them are active in the fabrication of aluminum conductor, both bare and insulated.

²² The Fortune Directory, *The 500 Largest U.S. Industrial Corporations*, August 1961, shows that in terms of assets and invested capital each of the five (or a parent corporation) was among the Nation's 100 largest, and the rankings in terms of sales, employees and net profits were only slightly lower:

RANK	Invested Assets	Capital
Alcoa	33	57
Anaconda Co.*	22	34
Kaiser	27	22
Reynolds	40	62
Olin Mathieson**	52	81

RANK	Employees	Sales	Net Profits
Alcoa	36	50	56
Olin Mathieson**	53	66	72
Anaconda Co.*	56	70	49
Reynolds	95	108	73
Kaiser	106	177	111

*Anaconda Co. is the parent of Anaconda Aluminum Co., a primary aluminum producer, as well as of Anaconda Wire and Cable Co., which fabricates aluminum conductor.

**Olin Mathieson Chemical Corp. is a half owner of Ormet Inc., an integrated aluminum company.

While Alcoa has lost its monopoly, it remains the largest and strongest competitor both in production of primary aluminum (where it accounted in 1960 for 36% of the nation's output and 38.6% of its capacity) and in the fabrication of aluminum conductor. The remaining power in the conductor markets is largely concentrated in the hands of the other primary aluminum companies. In aluminum conductor, the broader line of commerce, Alcoa led the industry with a pre-merger market share of 27.8%. With its leading integrated competitor (Kaiser), it controlled 50% of the market; with its three leading competitors, more than 76%. Only nine concerns—the five integrated companies²⁹ plus four independents (including Rome, with 1.3%)—accounted for 95.7% of the output of aluminum conductor. No other company whose statistics appear in the record³⁰ claimed as much as 1% of the market.

In the narrower market—insulated aluminum conductor—a similar pattern prevailed, except that Alcoa's third ranking share was somewhat lower (11.6%) and Rome's somewhat higher (4.7%). The five integrated companies controlled 65.6% of the

²⁹ In addition to these five, General Cable—which accounted for 6% of the market—might also be classified as an integrated producer. Thirty percent of its stock is held by American Smelting and Refining Company, and that company also owns 30% of the stock of Revere Copper and Brass Co. American Smelting and Refining also has interlocking directors with both Revere and General Cable, and Revere, in turn, is a full partner with Olin Mathieson in Ormet, a producer of primary aluminum. See GX 396, R. 2620; cf. R. 982, 983-984.

³⁰ See fn. 14, at p. 20, *supra*.

market and the top four independents (including Rome) whose production statistics are in evidence added another 22.8%. Again, no other firm with statistics of record produced as much as 1%.²¹

In sum, at the time of the merger, the lines of commerce involved were highly concentrated markets dominated by a handful of aluminum companies, but also served by a small and diminishing group of significant independents.

2. The court below did not dispute the underlying data presented by the government, e.g., that five integrated producers controlled more than 80% of the aluminum conductor market. It held, however, that these data were without significance because production of aluminum and fabrication of its products

²¹ These figures take on an added significance when compared with figures for other industries which the courts have found to be concentrated. Thus, in *United States v. Bethlehem Steel Corp.*, 168 F. Supp. 576, 584, 605 (S.D. N.Y.), Judge Weinfield found the iron and steel industry "already highly concentrated" when twelve integrated producers possessed 83 percent of the total industry capacity. In *A. G. Spalding & Bros. Inc. v. Federal Trade Commission*, 301 F. 2d 585, 612, 617 (C.A. 3), the Third Circuit affirmed the FTC's finding that "there was a high degree of concentration" in the athletic goods industry where the four general line companies accounted for 46.4% of the business and the top nineteen companies accounted for 81.1%. And in *Brown Shoe*, 370 U.S. 294, 300, this Court noted the district court's findings that a small number of shoe manufacturers "occupied a commanding position" in that the top four produced approximately 23% of the nation's shoes.

"were concentrated to the point of monopoly less than twenty years ago" and have "undergone a gradual decentralization by the entry of new producers and fabricators since that time" (R. 1322). This conclusion overlooks completely the fact that it was action by the federal government, not the forces of the market, which broke Alcoa's monopoly and brought about this "decentralization". Prior to the end of World War II Alcoa was the sole producer of primary aluminum and the sole fabricator of aluminum conductor, wire and cable. It would be a remarkable outcome if Alcoa's long history as a monopolist—a status which was judicially terminated only two years before this acquisition—were now deemed a mitigating factor. The establishment of a few new firms as a result of government intervention neither shows that decentralizing forces are at work in the aluminum industry nor disproves the fact that Alcoa is one of a few dominant firms in these highly concentrated markets.

Similarly, the court noted that whereas there were four fabricators of insulated aluminum conductor in 1951, the number had risen to twenty-nine as of April 1, 1961 (R. 1322). This statistic loses significance, however, when it is observed that in 1959, the latest year for which figures are available, only eleven of the twenty-nine companies referred to by this court (AR 5, R. 3229) produced as much as 1% of the insulated aluminum total; five others were, by

the time of trial, out or "almost completely out," of the field; and another five did not make the aluminum conductor products principally used in overhead distribution (*supra*, pp. 20-21). A directory of producers shows only one fabricator in 1961 which was not also listed in 1955, other than those which acquired existing firms (GX-442, R. 2727). The presence of these insignificant concerns cannot reasonably affect the conclusions stated above.

Furthermore, in selecting the years 1951 and 1961 as its points of reference, the district court obtained an extremely misleading picture of the industry trend. If, instead of 1951, it had used 1955 as the earlier coordinate, it would have found a somewhat different, and more meaningful, pattern. Except for Olin Mathieson (which gained entry by buying out, Southern Electrical in 1957) and Hatfield Wire and Cable Division of Continental Copper and Steel Industries, Inc. (which accounted for less than .4 percent of insulated aluminum conductors in 1959) GX 436, fn. 1, R. 2718), all of the companies which now occupy the two relevant markets gained entry sometime prior to 1955.

The fact is that there was a sudden surge of new entries into the market in the early days of the Korean War, partly because of shortages of copper and government allocations of aluminum for making aluminum conductor. Of the thirteen concerns important enough to command as much as 1% of either the insulated aluminum or aluminum conductor markets in 1959, one (Alcoa) had been a producer before 1951; four (Kaiser, Reynolds, Olin and Southern Electrical) began to make aluminum conductor in 1951 and seven

(General Cable, Anaconda, Nehring, Essex, Southwire, Central and Rome) had received government allocations and were about to commence production (R. 937-938). The other two, General Electric and Circle, whose market shares are in insulated aluminum, amounted to only 1.5 and 1%, respectively (GX 436, fn. 1, R. 2718). After that early surge a few small companies entered the market but, since 1955, it has gained only one new concern while losing five. These developments neither justify the district court's conclusion that there has been a "gradual decentralization" nor discount the proof that these are highly concentrated markets dominated by a few giant integrated producers.

The same facts dispel the significance of the court's finding that there is "ease of entry" into the industry. The possible entry of new firms is meaningful only if the character of the industry is such that new firms are likely to appear, and to become as important competitors as the firm being eliminated. In this industry, however, most of the newcomers have been able to acquire only inconsequential shares of the market. Indeed, no company which has entered the market (other than by acquisition) since the Korean emergency has obtained a market share approaching that of Rome—the company lost to the market—in either product line. In such circumstances, it would seem that: (1) substantial firms are unlikely to venture into a field which holds such slim prospects of success; and (2) even if they do, they are unlikely to develop to a point where they will be effective substitutes for the firm whose independence has been terminated.

B. ANY ACQUISITION OF A SIGNIFICANT COMPETITOR BY ONE OF THE FEW DOMINANT FIRMS IN A MARKET IN WHICH ECONOMIC POWER IS ALREADY HIGHLY CONCENTRATED MAY SUBSTANTIALLY LESSEN COMPETITION WITHIN THE MEANING OF SECTION 7

This critical proposition, upon which the present case turns, was laid down by this Court in *United States v. Philadelphia National Bank*, 374 U.S. 321, 365, n. 42:

It is no answer that, among the three presently largest firms (First Pennsylvania, PNB, and Girard), there will be no increase in concentration. If this argument were valid, then once a market had become unduly concentrated, further concentration would be legally privileged. On the contrary, if concentration is already great, the importance of preventing even slight increases in concentration and so preserving the possibility of eventual deconcentration is correspondingly great.

We submit that the principle thus noted in the *Philadelphia Bank* case is indispensable to the achievement of the basic purposes of the 1950 amendments to Section 7. The cardinal objective was to halt the rising tide of concentration in the American economy

by preventing accretions of power which "are individually so minute as to make it difficult to use the Sherman Act test against them" (S. Rep. No. 1775; 81st Cong., 2d Sess., p. 5). The House Report noted that "the outstanding characteristic of the merger movement has been that of large corporations buying out small companies, rather than smaller companies combining together in order to compete more effectively with their larger rivals" (H. Rep. No. 1191, 81st Cong., 1st Sess., p. 3). It is difficult to think of a more typical example of these undesirable acquisitions than the giant Alcoa's buying up the small but vigorous Rome Cable Company.

We discuss below in some detail the reasons which commend such a common-sense approach to the issue, but we note first that it is one which offers industrialists and the government manageable standards that can be administered in the statutory terms of probability without endless study of the particularities of every merger with a view to forecasting its individual long-range consequences.²²

²² See *Crown Zellerbach Corp. v. Federal Trade Comm.*, 296 F. 2d 800, 826-827 (C.A. 9); Stigler, *Mergers and Preventive Antitrust Policy*; 104 U. of Pa. L. Rev. 176, 182 (1955); Bok, *Section 7 of the Clayton Act and the Merger of Law and Economics*, 74 Harv. L. Rev. 226, 371 (1960).

1. Such an acquisition may substantially lessen competition because it enhances the power of a concern which has already reached the peril point

On the eve of the acquisition, Alcoa controlled 27.8% of the aluminum conductor market. The acquisition added 1.3%. Both before and after the merger, Alcoa's market percentage was so great as to pose a substantial threat to competition. In the *Philadelphia Bank* case, 374 U.S. 321, 364-365, this Court invalidated a bank merger on the ground, in part, that it "will result in a single bank's controlling at least 30% of the commercial banking business" in the relevant geographical market. While (at p. 364) disclaiming any attempt to specify the smallest market share which would threaten undue concentration, the Court had no doubt "that 30% presents that threat" and cited the views of several economists that even less should suffice to condemn a merger: "Kaysen and Turner *** suggest that 20% should be the line of *prima facie* unlawfulness; Stigler suggests that any acquisition by a firm controlling 20% of the market after the merger is presumptively unlawful; Markham mentions 25%" (374 U.S. at p. 364, fn. 41).²³ We submit, therefore, that the present merger—from which Alcoa emerged with 29.1% of the aluminum conductor market—presumptively gave rise to a reasonable probability that competition will be substantially

²³ See Kaysen and Turner, *Antitrust Policy*, p. 133, n. 38 (1959); Stigler, *Mergers and Preventive Antitrust Policy*, 104 U. of Pa. L. Rev. 176, 182 (1955); Markham, *Merger Policy Under the New Section 7: A Six-Year Appraisal*, 43 Va. L. Rev. 489, 521-522 (1957).

lessened. Experience shows that such preponderant economic power nearly always depresses competition.

It is true, as the district court noted, that the market share of the merged companies declined subsequent to the acquisition (R. 1313, 1322, 1324). However, except in the unusual case where "the structure of the market has changed radically since the merger," changes in the merging company's post-acquisition share of the market are entitled to little, if any, significance, since "so long as the merger is the subject of an investigation or proceeding [the merging company] may deliberately refrain from anti-competitive conduct—may sheathe, as it were, the market power conferred by the merger—and build, instead, a record of good behavior to be used in rebuttal in the proceeding." *The Procter & Gamble Company*, Federal Trade Commission Docket No. 6901, decided November 26, 1963, Mimeographed Opinion, p. 38 (Commissioner Elman). Thus, it is not uncommon "for the market share of merging companies to decline for a time after the merger for reasons not related to the ultimate effect of the merger." *Foremost Dairies, Inc.*, Dkt. 6495, CCH Trade Reg. Rep., ¶ 15,877 at p. 20,684. And this Court has pointed out that the sum of the pre-existing shares of the merging companies, while they need not remain stable in the future, nonetheless "provide a graphic picture of the immediate impact of a merger, and, as such, also provide a meaningful base upon which to build conclusions of the probable future effects of the merger." *Brown Shoe Co. v. United States*, 370 U.S. 294, 343, n. 70.

2. The competition eliminated by such an acquisition is "substantial" because, in an industry where few firms compete, the competition furnished by each firm has importance beyond its market share.

The most obvious anticompetitive effect of any horizontal acquisition is that it eliminates the competition which would have been offered by the acquired company had it remained independent. The "elimination in whole or in part of the competitive activity of an enterprise which has been a substantial factor in competition" was cited by the House Report on the amended Section 7 as a prime example of effects which the bill would prohibit (H. Rep. No. 1191, 81st Cong., 1st Sess., p. 8). What makes a company a "substantial factor" obviously depends upon a number of considerations, including its absolute and relative size, the vigor with which it competes, the quality of its goods and services, and the degree to which it introduces innovations.

Another highly important consideration—which is decisive here—is the number of effective firms in the industry. In an industry where a great many compete, the loss of a company with a relatively small market share may be of little consequence. On the other hand, in an industry where the number of sellers are few, the competitive significance of each company is correspondingly great and transcends its bare market percentage. This is not to say that in a highly concentrated industry a firm having a small market percentage may not be acquired even by another firm of

the same size. Such an acquisition, by enabling the companies to compete more effectively with their larger rivals, may in some circumstances enhance the prospect of eventual deconcentration and thereby escape the prohibition of the statute. See (*Brown Shoe*, 370 U.S. at 331). But where the loss of one of the few significant competitive factors serves no economic purpose other than to augment the market position of the firm which already leads, its effect upon competition is necessarily adverse and substantial.

It is a basic premise of the antitrust laws that competition will be most vital "when there are many sellers, none of which has any significant market share." *Philadelphia Bank*, 374 U.S. at 363. The more firms there are, the less each firm need fear that its competitive efforts will immediately be nullified by the retaliation or imitation of its rivals. Conversely, the fewer the firms, the greater the likelihood that all of them, by tacit agreement or otherwise, will pursue parallel policies of mutual advantage and refrain from aggressive competition. In a concentrated industry, no less than in a fragmented one, the character of competition may be greatly affected by the number and type of competing entities; the tendency of oligopolists to abstain from competition may be tempered by the presence of their smaller, but still significant, rivals. The more competitors they must reckon with, the less confident they can be that their lead will be followed (e.g., in price increases) or that sluggishness in improving their prod-

ucts will cause no loss of business. Thus the smaller companies may serve as an important stimulus to the market leaders. The fewer small companies there are, the more important each becomes as a check upon the market leaders.

In the present case, the market shares of the acquired company—1.3% in aluminum conductor and 4.7% in insulated aluminum conductor—may not appear great in absolute terms. They loom larger, however, when it is observed that in the aluminum conductor market there were not more than a dozen companies which could account for as much as 1% of industry production in any one of the five years (1955-1959) for which statistics appear in the record. Rome was invariably one of those companies. In 1958, the year preceding the acquisition, Rome ranked ninth among all firms and fourth among the independents (GX 434, R. 2713). In the insulated aluminum field, Rome was an even more significant factor, ranking eighth among all companies and third among the independents (GX 436, R. 2717).⁴ Even in quantitative terms, therefore, the competition which Rome offered was, in the context of this industry, substantial.

The role which small companies may play even in a highly concentrated market is also illustrated by the evidence in the present case. Two of the independents—Central and Nehring—engaged, from time to time, in price-cutting (R. 163-164, R. 892). And while Rome apparently was not a price innovator, it was nonetheless shown to be an “aggressive competitor” (R. 937).

⁴ These rankings do not include Central, whose statistics are not of record. See, *supra*, p. 20, fn. 14.

A pioneer in the field of aluminum insulation, Rome was credited with the development of one of the most widely used insulated conductors. Its broad line of high-quality wire and cable products, its special aptitude and skills in the field of insulation, and its "active and efficient research department and sales organization"—all acknowledged by the court below (R. 1314)—had earned it an outstanding reputation in the industry. A year prior to the merger, it had constructed a \$675,000 facility designed to expand its research efforts and stimulate development of new products. The effectiveness of its marketing organization is testified to by the decision of Alleoa to make Rome the vehicle for distributing not only the insulated conductor in which Rome was the acknowledged specialist, but the entire conductor line of both companies (*supra*, pp. 8-10).

It was for these qualitative assets that Alleoa was willing to trade stock worth \$34 million. Thus, the president of Rome testified:

* * * when we talked with the Alleoa people that January, there was more time spent on discussing personnel and organization than there was on balance sheets and figures and things of that nature * * * (R. 955).

Enterprises of such demonstrated quality and high repute cannot easily be replaced by new entrants to the market, and their elimination is plainly a substantial loss to competition.

The presence of independents such as Rome, even in a market dominated by giants, is desirable also as part of the "economic way of life sought to be

preserved by Congress" (*Brown Shoe*, 370 U.S. at 333). By limiting the further growth of oligopoly, Congress hoped to "aid in preserving small business as an important competitive factor in the American economy" (S. Rep. No. 1775, 81st Cong., 2d Sess., p. 3). There is no reason to believe that this policy or the views of Congress respecting the "desirability of retaining 'local control' over industry and the protection of small businesses" (*Brown Shoe*, 370 U.S. at 315-316), were intended not to apply to small firms operating within the framework of an oligopolistic industry. And Rome, while a substantial competitive factor, was at the same time the prototype of the relatively small, locally controlled business which Congress aimed to preserve.

3. The competition eliminated by such an acquisition is "substantial" because, in such an industry, independent competitors offer the best hope for future decentralization of economic power

The aggressiveness and innovation of small concerns are important not only as a competitive check upon the dominant leaders in a concentrated market but also because their presence preserves the possibility of eventual deconcentration. If the leaders can buy up small competitors before they have an opportunity to grow, justifying the purchase on the ground that the statistical change in market shares is quantitatively small, then it is easy to perpetuate oligopoly and preclude any possibility of the restoration of greater competition. The importance of this element

was emphasized by the Court in the *Philadelphia Bank case*, 374 U. S. 321, 365, n. 42 (quoted p. 55, *supra*). It furnishes a strong additional reason for barring all such acquisitions by a dominant firm.

4. The competition eliminated by such an acquisition is "substantial" because, in such an industry, each such acquisition is a major step towards the elimination of all independent concerns and the capture of the whole market by the giant companies.

The paramount purpose of the amended Section 7 was to prevent the piecemeal growth of oligopoly by an accumulation of individually small acquisitions. Congress feared that

Where several large enterprises are extending their power by successive small acquisitions, the cumulative effect of their purchases may be to convert an industry from one of intense competition among many enterprises to one in which three or four large concerns produce the entire supply (S. Rep. No. 1175, 81st Cong., 2d Sess. 5, quoted in *Brown Shoe*, 370 U.S. at 333-334; and see H.R. No. 1191, 81st Cong., 1st Sess. 8).

In *Brown Shoe*, this Court gave effect to the congressional policy against creeping concentration by striking down a merger in the retail shoe industry, a highly fragmented line of commerce composed of 70,000 retail outlets of which 22,000 were "shoe stores" in the ordinary sense (370 U.S. at 300). Although the combined market share of the acquired and acquiring companies did not exceed 5%, and the effect of the acquisition was to give the acquiring company

control over only 7.2% of the nation's retail "shoe stores" (*id.*, at 343, 345), the Court held that to approve the merger might require it to approve comparable acquisitions by Brown's competitors seeking similar market shares (pp. 343-344), thus permitting this fragmented market to become, little by little, an oligopoly.

If, in a highly dispersed industry, a small acquisition is banned by the statute on the ground that it might constitute a step on the road to oligopoly, a comparable or more substantial acquisition by a leading company in an industry which is much further along that road plainly stands on no better footing. Indeed, the more nearly an industry approaches all-out oligopoly, the more objectionable each step becomes and the more urgent it is that the policies of the Clayton Act be brought into play. In such an industry it should not be necessary to demonstrate a pronounced merger "trend"—*i.e.*, a past history of acquisitions or a deliberate merger policy on the part of the leading companies—in order to justify immediate action to head off further acquisitions. For by the time such a trend is established, it is likely that all of the acquirable companies of more than marginal significance will have been removed from the market. In the present case, for example, one further acquisition by four of the six integrated aluminum companies now in the conductor field (see, *infra*, p. 68) could eliminate virtually all of the significant independents. And if Alcoa is permitted to acquire a vigorous competitor

such as Rome for the purpose of preserving its "No. 1" position (*supra*, p. 29), it is difficult to see how Kaiser or Reynolds could be barred from purchasing comparable independents (Essex, Southwire or Nehr-ing) in order to protect their relative positions or to overtake Alcoa. Within a relatively short time, all of the significant independents would be extinguished and the market occupied exclusively by integrated giants.

Moreover, in an oligopolistic industry there is an inherent likelihood that an expansionary move by any of the few dominant firms will induce a defensive or retaliatory counteraction by its principal competitors. That very process is unfolding in the aluminum conductor fields. The absorption of Rome by Alcoa was one of five acquisitions by producers of primary aluminum since 1957. In that year Olin Mathieson acquired the Southern Electrical Corporation, then the largest independent manufacturer of aluminum conductor (GX 434, R. 2713); and Kaiser acquired the Bristol, Rhode Island, plant of the U.S. Rubber Company, one of the top ten in the insulated aluminum field. These moves, and the threat they were thought to pose, were specifically identified as factors influencing Alcoa's 1959 decision to acquire Rome (GX 150, R. 2127; GX 161, R. 2179-2184). And it was partly in response to the three prior acquisitions, that Reynolds, in 1961, acquired the wire and cable facilities of John A. Roebling's Sons Division of the Colorado Fuel and Iron Company, a small fabricator

(GX 387, R. 2606; GX 396, R. 2620). Finally, in February 1963, too late to be noted in the record below, Aluminium Ltd., of Canada announced the acquisition of Central Cable Corporation, one of the largest of the independents (see p. 20, *supra*, fn. 14). As a result of this series of mergers, there now remain only four non-integrated fabricators of aluminum conductor whose individual shares of total industry production (based on 1959 figures, the latest in the record) amounted to more than one percent (Southwire, Essex, General Cable, and Nehring). And since Harvey Aluminum Company, another primary producer, is presently considering entry into the conductor field through the acquisition of an existing manufacturer (R. 474), it seems likely that the ranks of the independents will soon be further depleted, if the decision below is allowed to stand.

For the integrated aluminum companies, therefore, acquisition has apparently become a preferred method by which to enter the aluminum conductor markets and, once having entered, to expand and diversify their operations. We do not wish to overdraw the picture. Two of the acquisitions (Olin-Mathieson—Southern Electrical and Aluminium, Ltd.—Central Cable) resulted in the replacement of the acquired company by an integrated company which had not previously been active in the conductor field. The court found, moreover, that two of the other acquisitions (Kaiser-Bristol and Reynolds-Roebling) involved small market shares (.8% and .1%, respectively) and that in both cases there was a decline in

the post acquisition market shares of the acquired and acquiring companies. On the basis of these facts, the court concluded that there was "no significant pattern or trend of mergers with respect to the manufacture and sale of aluminum conductor, wire and cable products." (Fdg. 46, R. 1293).

While we concede the underlying facts, we dispute the conclusion which the court below drew from them—a legal and economic conclusion which this Court is free to reject. In the first place, the significance of this series of acquisitions does not lie in short-run increases in the market shares of the particular acquiring companies, or even of integrated companies generally, but in the fact that each combination (except Reynolds-Roebling) removed from the market one of the few substantial non-integrated competitors. In an industry such as this, if five acquisitions within a three-year period—eliminating nearly half of the substantial non-integrated fabricators—does not constitute a "significant pattern or trend," it is difficult to see how such a trend could be established short of the extinction of all the independents.

Second, even where the acquiring company merely replaces an existing independent fabricator, potential competition may be foreclosed. For if the merger device had been unavailable, the acquiring company might in any event have entered the conductor field by means of internal expansion, the "socially preferable" means of corporate growth. *United States v.*

Philadelphia National Bank, 374 U.S. 321, 370.²⁴ There can be no doubt but that these enormous enterprises possess the financial resources to undertake such expansion and that the electrical conductor field is one to which they would naturally gravitate. The record shows that Alcoa, feeling its supremacy threatened by the Kaiser-Bristol merger, was prepared to embark upon a large program of internal expansion in

²⁴ Compare the statement of the district court that "[e]xpansion from within rather than by acquisition may be preferable from the economist's point of view but the statute makes no such prohibition" (R. 1330).

One of the unfortunate consequences of mergers such as the one here is that they deny to the consuming public, and to the national economy, the benefits of the investment in new plant and equipment which the acquiring company might otherwise make. In discussing the Rome merger, an Alcoa official stated that:

"The acquisition by any of the integrated producers of any of the independent wire and cable companies or various combinations of mergers are not nearly as obnoxious to the people who are already active in the wire and cable industry as is the entrance of a newcomer with bright, shiny new equipment. Acquisitions and mergers have the common denominator of not adding to existing capacity in the industry, and everybody in the industry is very conscious of the fact that the entire industry would be much more healthy if each manufacturer were to toss about two-thirds of his equipment into the Atlantic Ocean" (GX 162, R. 2185).

But a response to new and expanding industrial demands by the production of "bright, shiny, new equipment" is an obvious requisite of a growing economy. One function of antitrust legislation in general, and Section 7 in particular, is to encourage new productive capacity even when the members of the industry would be most happy to restrict existing capacity.

the event its merger efforts failed (GX 168, 169, R. 2193-2195), and had already completed plans to build new insulating facilities of its own in place of those formerly supplied by Rome under the tolling arrangement (*supra*, p. 27). Similarly, Reynolds, drawn to the aluminum conductor market by the presence there of its two principal rivals, gave consideration to the possibility of expanding its own facilities before deciding instead to acquire Roebling (GX 387, R. 2606). By the same token, it is entirely likely that Olin-Mathieson (or Aluminium, Ltd.), confronted by a situation in which its three major competitors were leading fabricators in the aluminum conductor field, would have felt pressure to develop its own fabricating capability had the merger avenue been closed. In sum, the entry of these two large primary producers into the aluminum conductor market need not have been gained at the expense of the substantial competition which Southern Electrical and Central Cable would have continued to provide as independents.

In view of the sequence of acquisitions since 1957, there is reason to apprehend that the remaining independents will eventually be absorbed and the market occupied exclusively by the integrated giants. The policy considerations which prompted the enactment of Section 7 demand that this transformation of the market into an even more intensive oligopoly be halted at its incipiency.

CONCLUSION

The judgment of the district court should be reversed, and the cause should be remanded with directions that the court enter a judgment of divestiture.

Respectfully submitted.

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MARCH, 1964.

APPENDIX

The exhibits in the record were admitted as follows:

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* By Stipulation filed with the Court on November 6, 1963 the parties agreed that GX 442 was admitted into evidence by the district court.

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